REMARKS

I.   Introduction

In response to the Office Action dated November 30, 2004, claim 1 has been amended. Claims 1-12 remain in the application. Re-examination and re-consideration of the application, as amended, are respectfully requested.

II.   Allowable Subject Matter

In paragraph 3, the Office Action indicates that the subject matter of claims 6-10 are allowable. The Applicants acknowledge the Office Action's indication of allowable subject matter.

III.   Claim Amendments

Applicant's attorney has made amendments to the claims as indicated above. These amendments were made solely for the purpose of clarifying the language of the claims, and were not required for purposes of patentability.

IV.   Art-Based Rejections

In paragraphs 1-2, the Office Action rejects claims 1-5 and 11-12 under 35 U.S.C. § 102(e) as being anticipated by Peyrovian, USPN 6,236,833.

The Applicants traverse the rejections in light of the arguments presented herein.

A. The Peyrovian Reference

Peyrovian discloses a scalable switch matrix and demodulator bank architecture for a satellite uplink receiver. A scalable switch matrix and demodulator bank architecture for a satellite payload processor wherein the demodulators are connected to the output ports of the switches as the data load on the uplink beams varies. The switch matrix includes a first switch layer for receiving the uplink transmission beams and a plurality of demodulators connected to the output parts of the first switch layer. The number of demodulators is limited by the number of active uplink sub-bands which is generally less than the number of sub-bands per beam times the number of transmission beams. Thus, only a relatively few number of demodulators are distributed among the uplink

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transmission beams as required. This results in a readily scalable architecture having higher demodulation utilization rates than dedicated demodulation architectures.

One polarization is typically sufficient to carry the data load of a majority of uplink transmissions, a plurality of 2x2 switches 20 and a 200x20 switch 22 are used to pick up the desired polarization for the load traffic cells and direct both polarizations to the first switch layer 10, if necessary, for uplink beams with heavy data traffic. See Col. 2, line 64 to Col. 3, line 2.

B. The Claims are Patentable over the Cited Reference

The claims of the present invention are directed to a method and apparatus for switching signals through a switch matrix are disclosed. An apparatus in accordance with the present invention comprises an input module and an output module. The input module has a plurality of inputs typically equal to a number of cells in a frequency reuse pattern, and the inputs receiving at least one uplink beam. The input module also has a plurality of outputs, the plurality of outputs is typically equal to the number of subbands in the uplink beam. The output module is coupled to the input module and selectively couples the outputs from the input module to an output of the output module.

The cited reference does not teach or suggest the limitations of the claims of the present invention. Specifically, the cited reference does not teach or suggest at least the limitation of a having an input module having a plurality of inputs equal to a number of cells in a frequency reuse pattern, or grouping the uplink signals into a plurality of groups where the number of groups is at least equal to a number of cell-reuse patterns, as recited in the claims of the present invention.

The Peyorvian reference input switches (the 2x2 switches 20 as described in the Office Action) do not have a plurality of inputs (two) equal to a number of cells in a frequency reuse pattern. On page 10, lines 13-21 of the present specification, the c-cell frequency reuse pattern, where c is the number of cells in the pattern, is described. Peyorvian makes no mention of the reuse pattern anywhere in the Peyorvian reference. Independent claims 1 and 11 both recite frequency reuse patterns for determining the inputs to switches or grouping of signals, which are not present or suggested by Peyorvian.

Anticipation by inherency "may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1269 (Fed. Cir. 1991). Instead, to establish inherency, the

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extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." *Continental Can Co.*, 948 F.2d at 1268.

Should the Office Action rely on finding anticipation by inherency, the Office Action would have then ignored the foregoing critical principles. The Office Action has not shown that frequency reuse patterns with respect to switch matrix design is necessarily present in the reference of record.

As such, claims 1 and 11 are patentable over the cited art of record, since the cited reference does not, directly or inherently, teach or suggest at least the limitation of the input module having a plurality of inputs at least equal to a number of cells in a frequency reuse pattern as recited in the claims of the present invention.

V.   Dependent Claims

Dependent claims 2-5 and 12 incorporate the limitations of their related independent claims, and are therefore patentable on at least this basis. In addition, these claims recite novel elements even more remote from the cited references. Accordingly, the Applicants respectfully request that these claims be allowed as well.
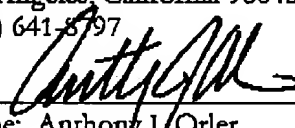
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VI. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicant's undersigned attorney.

Respectfully submitted,

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